

**BTL Specialty Resins  
Cook County  
LPC-0310035036  
SUPERFUND/ HRS  
ILD 981093180**

# **CERCLA**

## **Site Reassessment**

**BTL Specialty Resins**



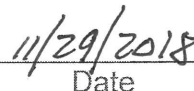
**Prepared by:  
Office of Site Evaluation  
Division of Remediation Management  
Bureau of Land**

## SIGNATURE PAGE

**Title:** Site Reassessment for the *BTL Specialty Resins site*.

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Date

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Signature

  
Date

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**CERCLA  
Site Reassessment**

**for:**

**BTL Specialty Resins  
Alsip, Illinois  
ILD 981093180  
LPC 0310035036**

**PREPARED BY:  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF LAND  
DIVISION OF REMEDIATION MANAGEMENT  
OFFICE OF SITE EVALUATION**

**December 29th, 2017**

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## **Section 1.0 Introduction**

On April 3, 2017, the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Reassessment (SR) at BTL Specialty Resins, Cook County, Illinois.

The Site Reassessment is performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) commonly known as Superfund. Current U.S. EPA policy stipulates that a Site Reassessment be conducted to determine the current status of the BTL Specialty Resins site. The Site Reassessment will consist of an evaluation of recent information to determine if further Superfund investigations are warranted. The Site Reassessment will supplement previous work, and is not intended to replace previous CERCLA assessments.

The Site Reassessment is designed to evaluate recent information that will help determine if the site qualifies for possible inclusion on the National Priorities List (NPL), or should receive a No Further Remedial Action Planned (NFRAP) designation. At the conclusion of the reassessment Illinois EPA will recommend that the site be given a NFRAP designation, receive further Superfund investigations, or referred to another state or federal cleanup program.

This Site Reassessment Report will describe current site conditions and illustrate how the BTL Specialty Resins property has changed since the last CERCLA investigation of 1989. This report will contain a summary of existing information that will include site history, current site conditions, evaluate past analytical data, and evaluate past remedial activities. The Site Reassessment will also support emergency response or time-critical removal activities if they are warranted.

## **Section 2.0 Site Description and History**

### **2.1 Site Description**

The BTL Specialty Resins site is located in a mixed residential, commercial, and industrial area at 3350 West 131<sup>st</sup> Street, Alsip (Blue Island mailing address), Cook County, Illinois (see Figure 2 and Figure 3). The property is bordered on the north by railroad tracks, on the east by

Homan Avenue, on the west by Valero Refinery (an active refinery), and on the south by 131<sup>st</sup> Street. The site occupies a total of almost 18 acres of land in the Northeast ¼ of Section 35, Township 37 North, and Range 13 East, of the Third Principal Meridian. The site is located at 41.65514 degrees latitude and -87.70315 degrees longitude.

According to the Cook County parcel finder website ([www.ccrecorder.org](http://www.ccrecorder.org)), the BTL Specialty Resins site is located on Parcel #24-35-200-013-0000. Currently, the land is owned by 131<sup>st</sup> Street Holdings, LLC located at 15 Reservoir Road in White Plains, New York 10603. The site topography is relatively flat.

Although one of the buildings on the site appears to have been used by the Valero Refinery which surrounds most of the site, most of the buildings and structures from the BTL Specialty Resins operations still exist. An inactive rail spur is also still located on both the western and eastern portions of the site. Physical access is currently restricted by a security fence that surrounds most of the property.

Surface water drainage from the facility is predominantly towards the north, entering an unnamed creek. During the inspection phase of the 1989 investigation, an oil-like sheen was detected on this creek with the non-point source apparently being the BTL Specialty Resin site. This creek flows east where it joins Stoney Creek, which then discharges to the Calumet Sag Channel.

Groundwater use in this region is confined to industrial use. The nearest community water supply well is located approximately two and one half miles to the northwest of the BTL Specialty Resins site in the City of Crestwood. The remainder of the community water supply wells are outside four miles. Drinking water is also purchased from the Village of Alsip which is supplied by the City of Chicago.

Census data has been compiled and formatted for use in GIS applications by ESRI, a GIS software company. ESRI used demographic data from the “Census 2000 Summary File” represented by Census Block Centroids to generate data that can be overlain onto maps for analysis (ESRI). In order to calculate population in areas surrounding the site, the ESRI census data was overlain onto a map from the region and queried based on distance from the site’s boundary. Population data based on GIS analysis for areas surrounding the site is shown below. A map illustrating the site with 4-mile distance rings can be found as an attachment to this report (Figure 4).

### Population within four miles of the site

Distance (mi)	Population
On-Site	0
¼ mile	0
½ mile	76
1 mile	6,633
2 miles	48,707
3 miles	123,227
4 miles	219,312

## 2.2 Site History

BTL Specialty Resins was purchased from Clark Oil and Refining Company on October 14<sup>th</sup>, 1985. BTL Specialty Resins was a chemical manufacturing company. Chemical manufacturing at this location appears to go back to the early 1960's. BTL Specialty Resins purchased propylene and benzene which was then used to produce cumene. Cumene is the common name for isopropylbenzene, an organic compound that is based on an aromatic hydrocarbon with an aliphatic substitution. It is a constituent of crude oil and refined fuels. It is a flammable colorless liquid. Nearly all the cumene that is produced as a pure compound on an industrial scale is converted to cumene hydroperoxide, which is an intermediate in the synthesis of other industrially important chemicals, primarily phenol and acetone.

There were five reactors located on the property that used cumene to react with oxygen in order to produce phenol and acetone. The acetone and approximately 80% of the phenol was sold to customers directly. The approximately 20% remaining phenol was mixed with a variety of chemicals to produce resins. These resins included phenolic resins, polycarbonate resins, and epoxy resins. These types of resins have a wide variety of uses in the market. BTL Specialty Resins described its wastes as benzene, cumene, formaldehyde, phenol, and corrosives. These wastes were then hauled off the site under the authority of the Resource Conservation and Recovery Act (RCRA). The site's RCRA status is discussed in Section 3.0 below.

On June 15<sup>th</sup>, 1995, BTL Specialty Resins sold the property to JLM Chemicals, Inc. Although, Blue Island Phenol, LLC is a subsidiary of JLM Chemicals, Inc., the property was transferred to Blue Island Phenol, LLC on January 10<sup>th</sup>, 2008.



Currently, production operations have ceased at the property. The property is overgrown with weeds, and the offices for Blue Island Phenol, LLC are vacant (see Attachment A). According to a news article picked up by ICIS news dated February 10th, 2014, company management for Blue Island Phenol, LLC stated that then 50-year old plant was going to be permanently idled and its assets sold off. The plant was initially shut down after the December 13<sup>th</sup>, 2013 fire (discussed in detail in section 2.2.2 below) but an agreed injunction order was issued on December 31<sup>st</sup>, 2013 requiring the plant's cumene unit to remain down until the cause of the accident could be determined. Blue Island Phenol sold the property to 131<sup>st</sup> St Holdings, LLC on October 26<sup>th</sup>, 2015.

#### 2.2.1 Blue Island Phenol, LLC 2008 Fire

On August 23<sup>rd</sup>, 2008, a lightning strike from a weather storm caused a power outage at Blue Island Phenol, LLC. Plant officials said that because there was no back-up power supply to the facility, cooling and circulation systems in the phenol unit failed, causing the temperature and pressure inside the phenol unit's oxidizers to increase. This led to the release of chemical vapors that eventually caught fire. According to a release at the time by JLM Chemicals, the fire occurred while the plant was being restarted after being without power for 12 hours.

An estimated one million gallons of water were used at the scene of the fire in order to put the fire out, and this led to the water being contaminated by the released chemicals. The runoff of this contaminated water caused fish to die in nearby ponds. The incident sent one employee to the hospital with chemical burns.

As a result of the fire, the Illinois Attorney General (IAG) filed a complaint against Blue Island Phenol, LLC in Cook County Circuit Court on September 17<sup>th</sup>, 2008 alleging air and water pollution, substantial danger to the environment and failure to operate the facility in a manner that minimizes the release of hazardous substances.

By November 2008, the IAG's office had reached an agreement with Blue Island Phenol, LLC that required Blue Island Phenol, LLC to retain an Illinois-licensed engineering firm. This firm was tasked with submitting an analysis of the cause of the accident and to recommend repairs and modification to the phenol unit before it was allowed to resume production. The settlement also required to investigate the extent of soil and groundwater contamination caused by the runoff water used to extinguish the fire.

On January 14, 2011, a consent order was entered with the Cook County Circuit Clerk's office on the 2008 fire at the Blue Island Phenol, LLC company. On December 31, 2013, the IAG issued a statement that Blue Island Phenol, LLC was still completing some of the work required under that order.

### 2.2.2 Blue Island Phenol, LLC 2013 Fire

At 11:30AM, on December 13<sup>th</sup>, 2013, an explosion at the Blue Island Phenol, LLC plant occurred. The explosion was caused by propane gas leaking from a ruptured pipe in the cumene unit. The gas formed a vapor cloud, which was then ignited by an unknown source. The explosion caused a fire which 40 area fire departments responded to. Two workers investigating the explosion were burned, but were able to walk away from the scene and were taken to the hospital for treatment. It took several hours to extinguish the fire.

The IAG filed a lawsuit on December 27<sup>th</sup>, 2013 in the Cook County Circuit Court which asked the judge to order a review of what caused the explosion and fire at the chemical factory. The lawsuit further stated that 5,165 of propane and about 2,035 gallons of "cumene co-product" (a mixture of chemicals that included benzene) were released into the environment surrounding the plant as a result of the incident. The lawsuit was also filed to seek an injunction that would order Blue Island Phenol, LLC to conduct an analysis of the explosion and resulting fire and its environmental impact. The lawsuit was seeking the injunction that would find the plant guilty on five counts of posing a sustainable danger to the environment, public health and welfare. It accused the plant of air pollution, creating a water pollution hazard and claimed the company failed to minimize the release of hazardous substances. Currently, this IAG Complaint is still working its way through the court system.

### 2.3 CERCLA Investigative History

On May 6th, 1988, an anonymous complaint was received by the Illinois EPA which stated that allegedly over 100 drums containing phenolic resins and phosphoric acid were buried on-site. These drums were allegedly buried near the railroad spur approximately eleven years before the complaint. The complaint also reported that waste was buried below a new loading terminal and that some of this waste was encountered during the terminal's construction. Allegedly this waste was buried during the time period that Clark Oil owned the property. Leachate was observed

during a June 1<sup>st</sup>, 1988 inspection of the property near the railroad spur on the west end of the BTL Specialty Resin site.

On May 31st, 1989, BTL Specialty Resins was placed on the Superfund Enterprise Management System (SEMS). The facility received its initial CERCLA evaluation in the form of a Preliminary Assessment (PA) report by the Illinois EPA, on March 16<sup>th</sup>, 1990. At the completion of the PA, BTL Specialty Resins was determined to pose enough of an environmental threat to move to the next step in the CERCLA process and receive more thorough investigations. There is no record of any additional CERCLA investigations or actions after the 1990, PA. It also appears this determination/recommendation was not accurate. This discrepancy will be further discussed in Section 4.

### **Section 3.0 Other Cleanup Authorities and Activities**

Weaver Boos Consultants North Central, LLC (Weaver Boos) completed a Near Surface Site Investigation of the BTL Specialty Resin site. The report is dated July 14<sup>th</sup>, 2014. The report was generated on the behalf of the creditors of Blue Island Phenol, LLC as a condition of the order between Blue Island Phenol, LLC and the State of Illinois after the December 13, 2013 fire. The report presents the information assembled during the investigation, including a summary of field activities, sampling analytical results, and an evaluation of the data compared to Title 35 Illinois Administrative Code, Part 742, Tiered Approach to Corrective Action Objectives (TACO).

In summary, The Weaver Boos Consultants investigation collected eleven soil samples. Benzene concentrations were detected in five of these eleven soil samples in excess of the Illinois Environmental Protection Agency's (IEPA's) Tier 1 Soil Remediation Objectives (SROs) for one or more of the Construction Worker, Residential and/or Industrial/Commercial Property exposure routes. Cumene (also known as isopropylbenzene) was also detected in six of these eleven soil samples in excess of Tier 1 SROs for one or more of the Construction Worker, Residential and/or Industrial/Commercial Property exposure routes. All of the other near surface soil samples collected during the investigation exhibited results below laboratory reporting limits or applicable proposed Tier 1 SROs.

Weaver Boos concluded that the chemical impacts discovered during the Site Investigation are unrelated to the December 13<sup>th</sup>, 2013 incident because of the lack of diisopropylbenzene in the soil samples. In 2013, the cumene co-product tank contained an average of approximately 67% diisopropylbenzene. At that concentration, Weaver Consultants reported that if the cumene co-product had impacted the soil, diisopropylbenzene would have been present. Their report stated that diisopropylbenzene was below laboratory reporting limits in all eleven soil samples submitted for analysis. The report stated that the cumene and benzene present in the samples were not released as a result of the December 13<sup>th</sup>, incident. The IAG's complaints are still active.

Currently, available information suggests that the site is not subject to the regulations of other pertinent statutes including the Atomic Energy Act (AEA), the Uranium Mill Tailing Radiation Control Act (UMTRA), or the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

On October 5<sup>th</sup>, 2015, Calvin Harris from the Illinois EPA Field Office attempted to do a RCRA Compliance Evaluation Inspection at the BTL Specialty Resin site. The facility was closed, and no one was on site. The Valero business is located next to the BTL Specialty Resin site and Valero provided Calvin Harris with the contact information for Nancy Ross (the trustee for the property's creditors). Nancy Ross then provided him with the manifest copies of the hazardous and non-hazardous wastes that have been shipped to a treatment and recycling center in Indiana. The owner of the property assured Calvin Harris that all the waste had been disposed of properly and agreed to arrange an inspection. It appears that activities at BTL Specialty Resins is currently being overseen under RCRA, by the Illinois EPA.

#### **Section 4.0 Summary and Conclusion**

During the previous CERCLA PA, information regarding an anonymous complaint that was received by the Illinois EPA in 1988 was documented. The complaint alleged that over 100 drums containing phenolic resins and phosphoric acid were buried on the BTL Specialty Resin site. These drums were allegedly buried near the railroad spur approximately eleven years before the complaint. The complaint also reported that waste was buried below a new loading terminal and that some of this waste was encountered during the terminal's construction. Allegedly this

waste was buried during the time period that Clark Oil owned the property. Additional investigations are needed to determine if buried drums are present on site.

The 2014 near surface investigation by Blue Island Phenol, LLC, revealed the presence of near surface contamination at the site. This creates the possibility for soil exposure and groundwater ingestion for the nearby business and residents of the BTL Specialty Resin site. Approximately 6,633 people live within a one-mile radius of the site at which contamination above background had been documented. The closest village well is located approximately 2.5 miles to the northwest of the site, but no contaminants have been found in the well.

In summary, chemical contamination and the potential for this contamination to migrate off the site still exist. Based on the nature of the contamination that was found during the previous investigations, it is likely that the contamination was from several of the companies that manufactured chemicals at the property. This contamination does not appear to be widespread, there do not appear to be many off-site targets.

Releases to the air have been documented after the 2008 fire and the 2013 fire, but in addition to that, the contaminants near the surface create the potential for windblown particulates to carry contaminants away from the site. One of the concerns for the site is the soil contamination. Evaluation of this property is continuing through litigation over the contamination found on-site, so far there is no record of any remediation. However, there is fencing that restricts access to all three parcels.

BTL filed a RCRA 8700-12 form for notification purposes but they are not in RCRA Closure or RCRA Permitting.

## Section 5.0 References

Cook County web site:

<http://www.ccrecorder.org/parcels>

Illinois Attorney General web site:

<http://lisamadigan.org/newsroom>

Illinois Environmental Protection Agency. 1990. "CERCLA Preliminary Inspection Report." March 16th.

United States Department of Commerce, Economics and Statistics Administration, Bureau of Census. Census 2000: Summary File 1. In: ESRI Data & Maps 2006 Data Update, <http://www.esri.com/data/data-maps/overview.html>.

U.S. EPA. 1988 "Superfund Exposure Assessment Manual," EPA 540/1-88/001, April

U.S. EPA web site:

<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0505862>

Weaver Boos Consultants 2014. "Site Investigation Report – 2014 Near Surface Investigation." July 14th.

Figure 1  
Site Location Map

BTL Specialty Resins  
Cook County  
Alsip, Illinois

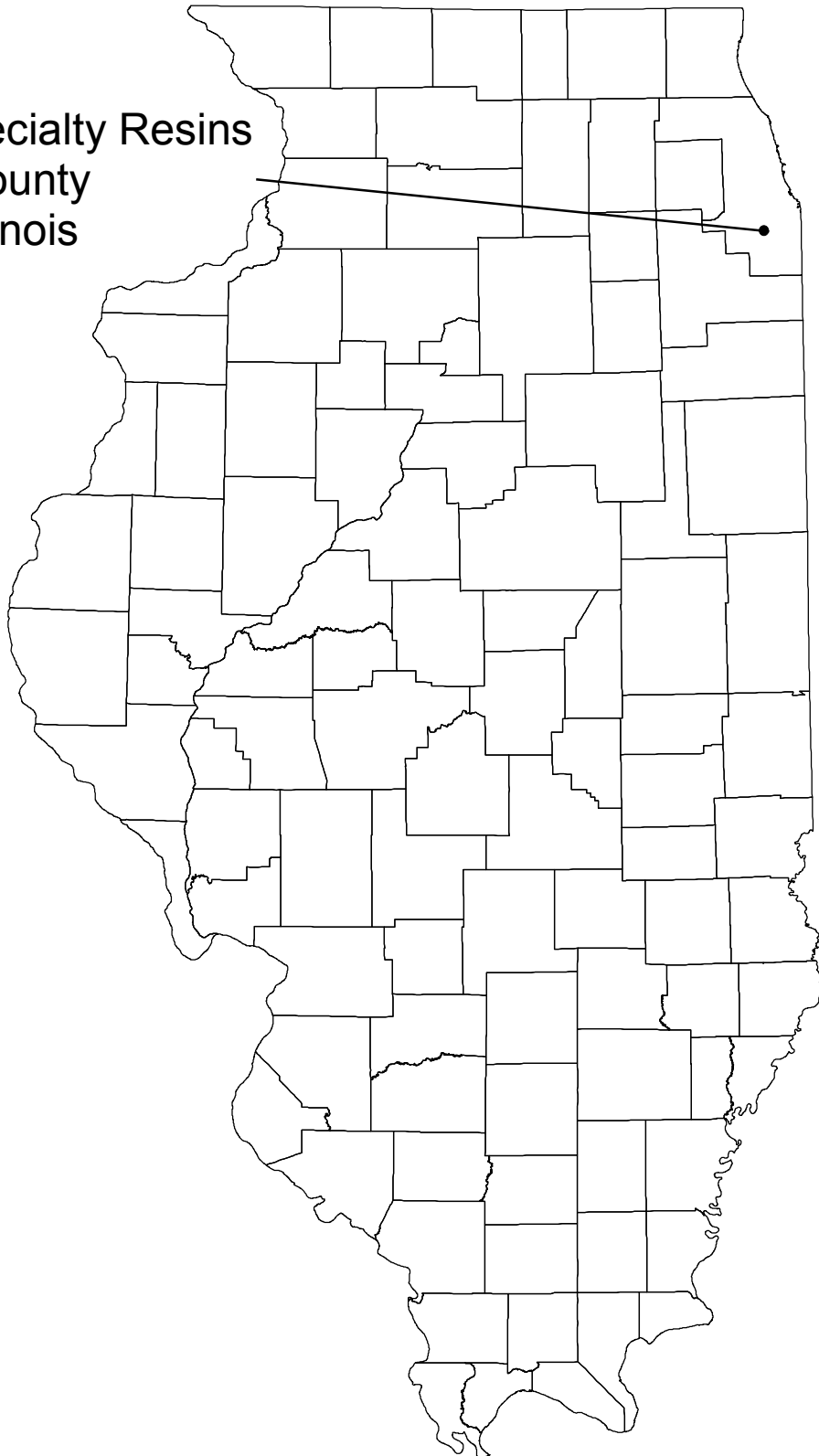




Figure-2  
Site Topographical Map

The map is a detailed topographical representation of a portion of Chicago, Illinois. It features a grid of streets, including major thoroughfares like Lincoln Avenue, Lake Avenue, and the Calumet River. Key landmarks such as Oak Hill Cemetery, Blue Island, and various parks and schools are labeled. A red rectangular box highlights a specific area in the center-left of the map, near the intersection of Lincoln Avenue and Lake Avenue. A scale bar at the bottom indicates distances from 0 to 1 mile, and a north arrow is positioned in the bottom-left corner. The map is overlaid with a grid of numbers, likely representing elevation or grid coordinates.



Figure-3  
Site Aerial Photograph

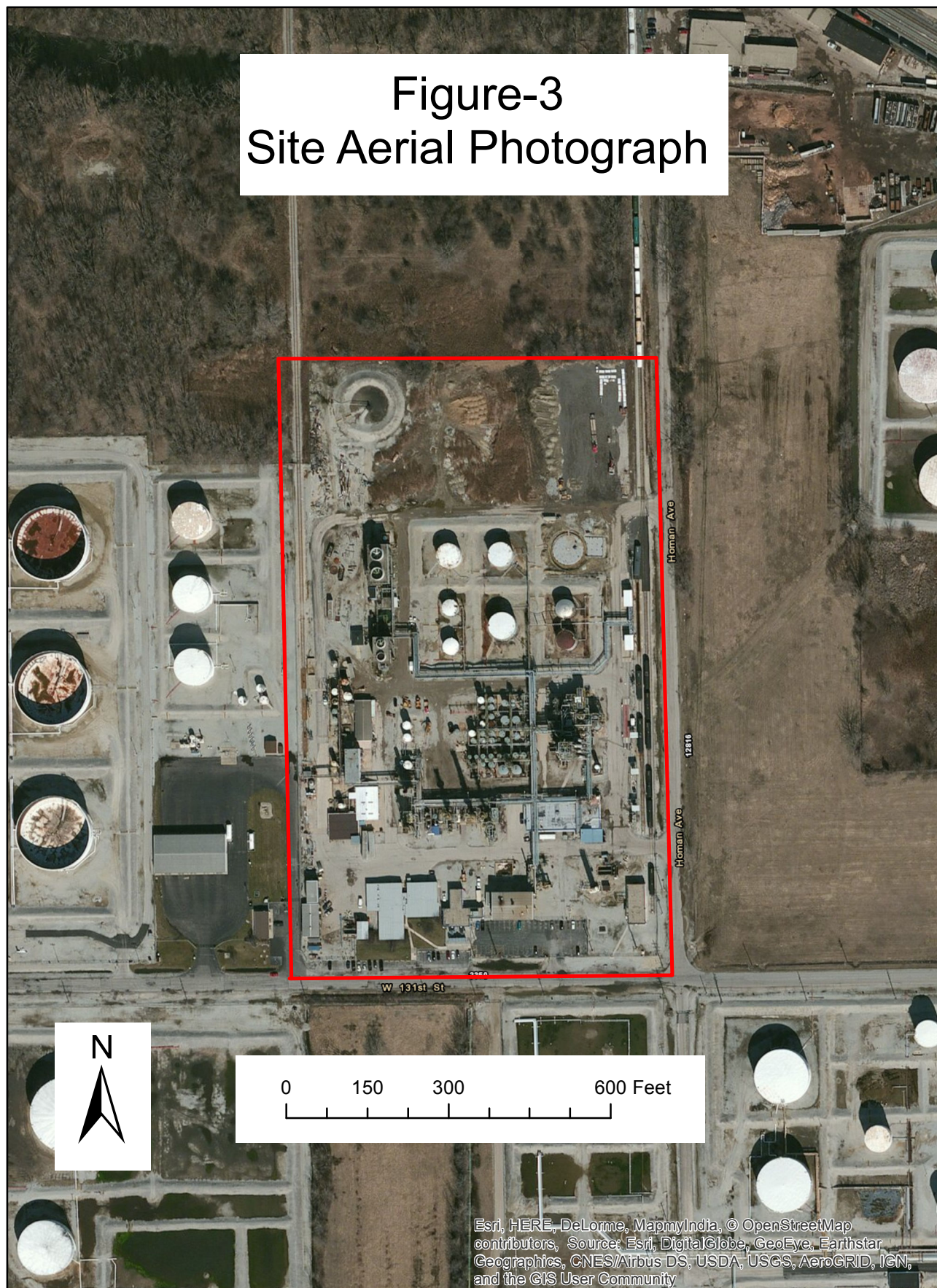
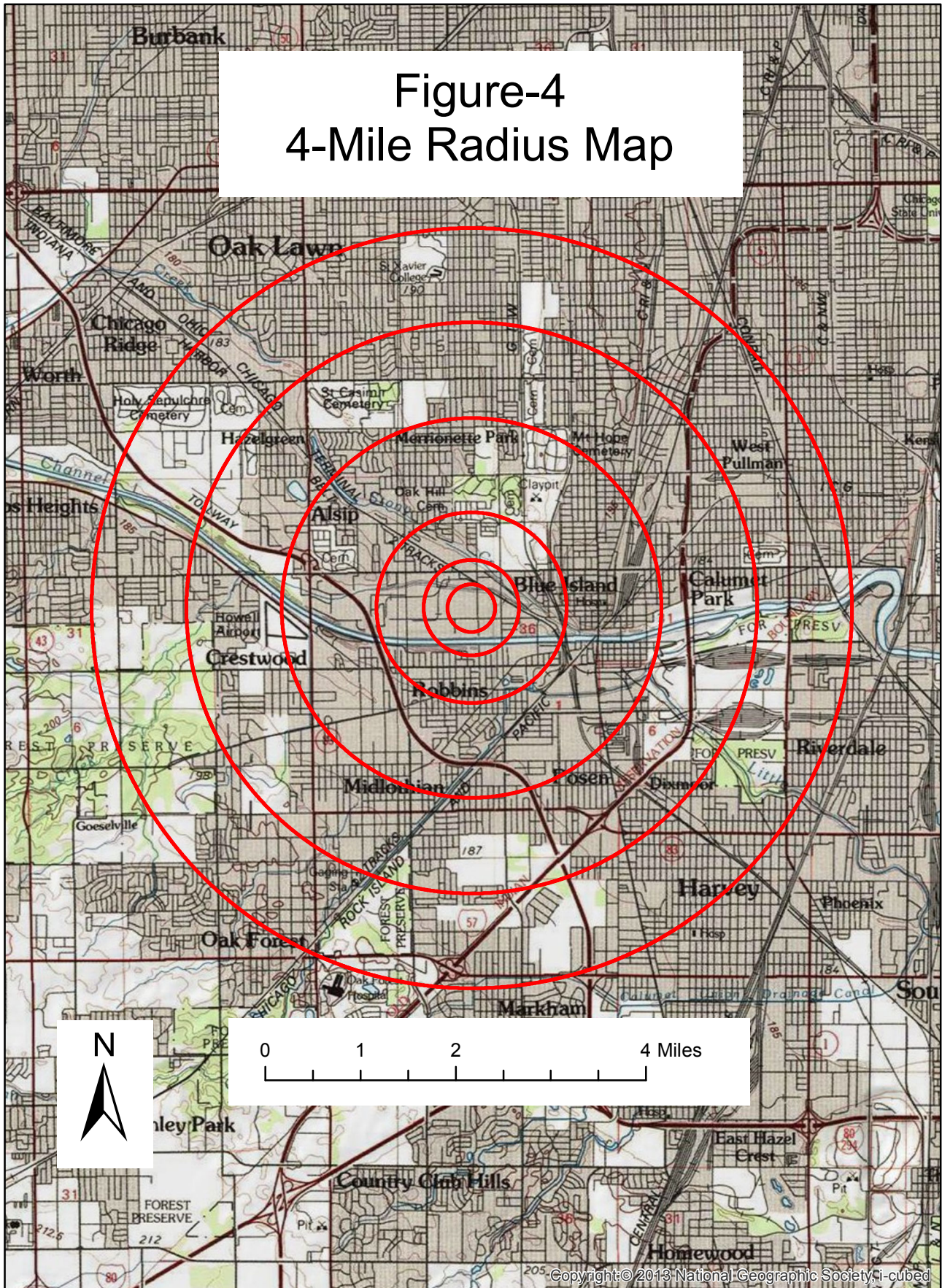




Figure-4  
4-Mile Radius Map



**Attachment A**  
**Site Photographs**  
**8/9/2017**



<b>SITE NAME:</b> BTL Specialty Resins		
<b>BOL ID:</b>	ILD 981 093 180	<b>COUNTY:</b> Cook

<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:23AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	West
<b>COMMENTS:</b>	



<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:23AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	Southwest
<b>COMMENTS:</b>	



<b>SITE NAME:</b> BTL Specialty Resins		
<b>BOL ID:</b>	ILD 981 093 180	<b>COUNTY:</b> Cook

<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:23AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	Northwest
<b>COMMENTS:</b>	



<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:27AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	West
<b>COMMENTS:</b>	





<b>SITE NAME:</b> BTL Specialty Resins		
<b>BOL ID:</b>	ILD 981 093 180	<b>COUNTY:</b> Cook

<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:27AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	Northwest
<b>COMMENTS:</b>	



<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:29AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	Northwest
<b>COMMENTS:</b>	



<b>SITE NAME:</b> BTL Specialty Resins		
<b>BOL ID:</b>	ILD 981 093 180	<b>COUNTY:</b> Cook

<b>DATE:</b>	8/9/2017
<b>TIME:</b>	11:29AM
<b>PHOTO BY:</b>	Dave Reed
<b>DIRECTION:</b>	Northwest
<b>COMMENTS:</b>	

